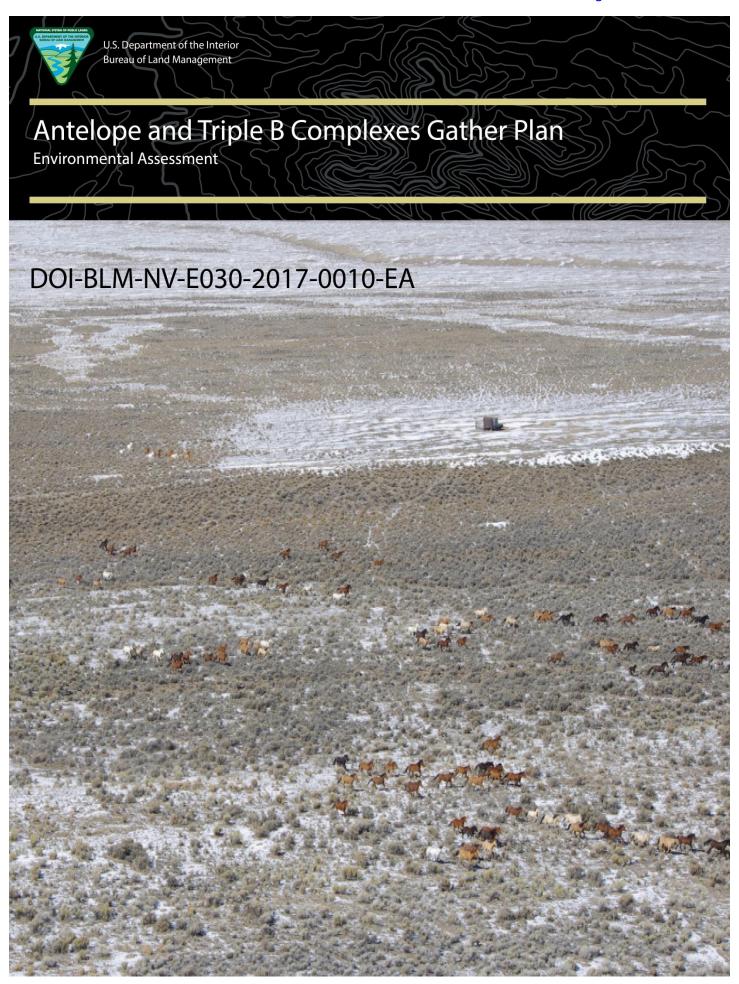
EXHIBIT B:

2017 EA for Antelope and Triple B Complexes



1.3. Purpose and Need for Action

The purpose of the Proposed Action is to gather and remove excess wild horses from within and outside the Triple B and Antelope Complexes and to reduce the wild horse population growth rates to achieve and maitain established AML ranges.

The need for the action is to prevent undue or unnecessary degradation of the public lands associated with excess wild horses, and to restore a thriving natural ecological balance and multiple-use relationship on public lands, consistent with the provisions of Section 1333(b) of the 1971 Wild Free-Roaming Horses and Burros Act (WFRHBA).

1.4.Land Use Plan Conformance and Consistency with Other Authorities

The Proposed Action (Alternative A) and Alternatives B and C are in conformance with the Wells Resource Management Plan which was approved July 16, 1985 and the Wells Resource Management Plan Wild Horses Amendment approved in August 1993. The Wells RMP Issue 7 states: Wild Horses, Management Actions 1) Continue to monitor wild horse populations and habitat conditions, 2) Conduct gatherings, of excess wild horses as necessary to maintain population within a range of 555 to 700 animals, 3) Construct six water developments projects (catchment type) with a storage tank and trough and 4), Remove wild horses from private lands if required. The Wild Horse Amendment further outlines the level of management for wild horses within the planning area including the Antelope Valley, Goshute and Spruce-Pequop HMAs as follows.

- Established initial herd size 871 animals and stated that adjustments will be based on monitoring and grazing allotment evaluations.
- The Wild Horse amendment further outlined the level of management for wild horses within the planning area including the Antelope Valley, Goshute and Spruce-Pequop HMAs. The Amendment established wild horse pre-livestock allowable use levels at 10%. ("Utilization of key forage species by wild horses in areas used in common will not exceed an average of 10 percent prior to entry by livestock"). The availability of forage in the winter use areas is considered the most limiting factor for wild horses.

The Proposed Action (Alternative A) and Alternatives B and C are in conformance with the 2008 Ely District ROD and Approved RMP (August 2008).

- Goal: "Maintain and manage healthy, self-sustaining wild horse herds inside herd management areas within appropriate management levels to ensure a thriving natural ecological balance while preserving a multiple-use relationship with uses and resources."
- Objective: "To maintain wild horse herds at appropriate management levels within the herd management areas where sufficient habitat resources exist to sustain healthy populations at those levels."

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that an action under consideration be in conformance with the applicable BLM land use plan(s), and be consistent with other federal, state, and local laws and policies to the maximum extent possible.

The Proposed Action is consistent with all applicable at laws and regulations at Title 43 Code of Federal Regulations (43 CFR) 4700 and policies. The Proposed Action is consistent with the Wild Free-Roaming Horses and Burros Act of 1971 (WFRHBA), which mandates the Bureau to "prevent the range from deterioration associated with overpopulation", and "remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area". Also the WFRHBA of 1971 sec 1333 (b)(1) states: "The purpose of such inventory exists and whether action should be taken to remove excess animals; determine appropriate management levels or wild free-roaming horses and burros on these areas of public land; and determine whether appropriate managements should be achieved by the removal or destruction of excess animals, or other options (such as sterilization, or natural control on population levels)." Additionally, 43 CFR 4700.0-6 (a) states "Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat (emphasis added)."

- 43 CFR 4710.4 Management of wild horses and burros shall be undertaken with the objective of limiting the animals' distribution to herd areas. Management shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans.
- 43 CFR 4720.1 Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately.
- 43 CFR 4720.2, upon written request from a private landowner, the authorized officer shall remove stray wild horses and burros from private lands as soon as practicable.
- 43 CFR 4740.1 (a) Motor vehicles and aircraft may be used by the authorized officer in all phases of the administration of the Act, except that no motor vehicle or aircraft, other than helicopters, shall be used for the purpose of herding or chasing wild horses or burros for capture or destruction. All such use shall be conducted in a humane manner. (b) Before using helicopters or motor vehicles in the management of wild horses or burros, the authorized officer shall conduct a public hearing in the area where such use is to be made.

The Interior Board of Land Appeals (IBLA) in Animal Protection Institute et al., (118 IBLA 63, 75 (1991)) found that under the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195) BLM is not required to wait until the range has sustained resource damage to reduce the size of the herd, instead proper range management dictates removal of "excess animals" before range conditions deteriorate in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area.

Action Type	Past	Present	Reasonably Foreseeable	Applicable CESAs
exploration/abandoned mine land reclamation/mineral extraction				
Spring development (including fencing water sources)	X	X	X	1-4
Non-native, Invasive and noxious weed inventory/treatments; pesticide application (Mormon cricket & grasshopper)	X	X	X	1-4
Wild horse management: issuance of multiple use decisions, AML adjustments, gathers and planning	X	X	X	1-4
Wildfire and Emergency stabilization and rehabilitation	X	X	X	1-4
South West Intertie Project (SWIP)			X	2

3.2.Analysis of Affected Resources

3.2.1. Cultural Resources

3.2.1.1. Affected Environment

Various cultural resource inventories have been completed and several historic properties recorded within the Antelope and Triple B Complexes. However, most of the public lands within these HMAs remain un-inventoried (less than 10% of the entire proposed project area) and only a fraction of the cultural resources recorded. Some of the known or expected cultural resources within the HMAs have historical or architectural significance, but most of the resources are archaeological in nature and their primary significance is the potential to provide insight into history and prehistory. These archaeological resources often consist of artifact scatters marking the locations of former habitation sites, camps, resource processing, management or procurement locations, transportation features, refuse disposal areas, etc. Historic and prehistoric archaeological sites are commonly located near springs, seeps, and creeks; therefore, it is anticipated that cultural resources will be identified at water sources within the proposed project area.

Prehistoric sites (i.e., sites dating prior to Euro-American contact) commonly include artifacts such as projectile points (e.g. spear points and arrow points), scraping and cutting tools,

ceramics, grinding stones, cooking stones, hammer stones, and flaking debris from tool manufacture. Food debris (e.g. bone, burned seeds, mussel shell) and features (e.g. cooking hearths, house floors, and storage pits) may also be present, but usually are not visible on the surface. Historic sites commonly contain tin cans, glass, ceramics, metal and wooden objects, foundations, and other types of structures. There are also numerous historic roads and trails, such as the Pony Express Trail (across the entire HMA), the Elko to Hamilton stage line (Newark Valley), the Denver-Shepherd Toll Road (Newark Valley), and the 1919-1930 Lincoln Highway (Steptoe Valley)

Livestock use (including cattle, sheep, and domestic and wild horses) over the last 150 years has likely affected most cultural resources in the Complexes to one degree or another. While we cannot specifically identify the types and extent of impacts to most cultural resources in the Complexes, experimental research has demonstrated that livestock trampling can damage, break, and dislocate artifacts (U.S Army 1990; Roney 1977). Common livestock damage observed at archaeological sites includes trampling, trail formation, wallowing, bedding, soil compaction, vegetation removal, rubbing on structural remains (e.g. using a cabin wall as a scratching post), and bodily waste elimination. These actions can impact or obliterate archaeological stratigraphy, site patterning, features, cause or exacerbate erosion, break, displace, and mix artifacts, and contaminate sediments and archaeological organic residues with fecal material and urine (Ataman 1996, Broadhead 1999, U.S Army 1990). Past impacts within the Complexes are likely to have ranged from minor movement of surface artifacts to severe damage to sites and artifacts. Some of the factors thought to play a part in current cultural resources condition and sensitivity to livestock impacts include soil type, soil moisture, terrain, season of use, grazing history, vegetation cover, and intensity of use.

Spring sites on both the Elko and Ely Districts that have not been subject to historic grazing have shown significant damage to cultural resources by wild horses. Increasing populations of wild horses and competition for limited access to water has resulted in serious impacts to cultural resources at spring systems. In an effort to access water, horses have caused significant ground disturbance from trampling and pawing the ground around the spring source. As a result, both prehistoric and historic artifacts at the spring were displaced and/or destroyed. In addition to the loss of artifacts, the site suffered a serious loss of integrity and data potential that will never be recovered. Further, historic structures a features have been damaged by wild horses in their attempt to access water.

3.2.1.2. Environmental Effects

Effects of the No Action Alternative

Wild horses would continue to increase in numbers and overpopulation would potentially cause an adverse effect to cultural resources, especially at water sources and other areas of congregation as a result of heavy trailing between water and forage.

Effects of the Proposed Action and Alternatives B and C

All temporary corrals and other affiliated facilities, in addition to parking, would be placed within previously disturbed areas whenever possible. If a corral or facility needs to be placed within an undisturbed area a Class III inventory would first be conducted by a District Archeological Technician (DAT) for the purposes of facility placement. The DAT would report all cultural resources identified during inventory to the Cultural Resources Specialist. All cultural resources would be avoided to prevent adverse effects to any properties potentially eligible to the National Register of Historic Places (NRHP).

3.2.1.3. Cumulative Effects

The proposed action and alternatives have no foreseeable cumulative effects to cultural resources because all cultural resources would be avoided.

3.2.2. Fisheries and Aquatic Species

3.2.2.1. Affected Environment

Special Status Species

Special status species include species that are listed or proposed for listing as threatened or endangered (T&E) under the Endangered Species Act (ESA). These species are or were candidates for listing under the ESA, species that are considered for priority management by the State of Nevada under the 2012 Wildlife Action Plan, and species that are considered as Nevada BLM Sensitive Species as of 2011. Two Federally-listed aquatic species are known in the Project Area. There are no known spring snail populations on public lands within the Antelope and Triple B Complexes. The area provides habitat for two fish species and an amphibian species which are considered Nevada BLM Sensitive Species.

Fish

Relict Dace - Sensitive

The Relict Dace (*Relictus solitaries*) is a Nevada endemic fish. Relict dace are an endemic genus of cyprinid minnow occurring only in isolated basin valleys in eastern Nevada. Typically relict dace concentrates in well-vegetated pools, springs, spring-fed streams, ponds, intermittent lakes, and marshes, with mud or stone bottoms where banks are undercut (Sigler and Sigler 1987). Riparian vegetation is critical for hiding from avian predators. The species is restricted to lakes, ponds, and spring-fed streams associated with Pleistocene lakes, including Franklin,

Gale, Warning, Steptoe, and Spring basins (Ruby, Butte, Steptoe, Goshute, and Spring Valleys) in eastern Nevada (White Pine and Elko counties) (Sigler & Sigler 1987).

Relict dace (*Relictus solitaries*) are known to occur on private and BLM public sections of the following allotments in the Project Area: East Big Springs, Valley Mountain, Currie, Odgers, Warm Springs and West Cherry Creek Allotments., Medicine Butte, Cherry Creek, and Tippett Allotments.

Independence Valley Tui Chub - BLM Sensitive, Nevada Endangered

Independence Valley Tui Chub (*Gila bicolor isolata*) are found in a private Independence Valley (Ralph's) Warm Springs (Marsh). This area is a temperate, permanent desert stream/marsh fed by six springs. Recent survey work has shown that tui chub occupy approximately eighty-eight hectares, four of the six spring areas of the marsh, and occupy the main body of Ralph's Warm Springs Marsh but they are not as widespread as the co-occurring speckled dace due to overlapping habitat requirement with invasive largemouth bass.

Independence Valley Speckled Dace - Federal Endangered

Independence Valley Speckled dace are restricted to Independence Valley in Elko County, Nevada. The historical range of Independence Valley speckled dace was not known before European settlement, which resulted in manipulating springs for irrigation purposes. This fish is known to occur on private land found in Independence Valley (Ralph's) Warm Springs (Marsh). This area is a temperate, permanent desert stream/marsh fed by six springs. The species adaptability allowed it to survive in the smaller wetland system while its other habitats were taken over by invasive largemouth bass (*Micropterus salmoides*) and bluegill (*Lepomis macrochirus*) (Rissler et al. 2001). It is believed to be derived from an ancestral form of speckled dace similar to the Lahontan speckled dace (*Rhinichthys osculus robustus*) presently occupying the Humboldt River system.

Clover Valley Speckled Dace - Federal Endangered

Clover Valley Speckled Dace (*Rhinichthys oscululus oligoporus*) is confined to three springs outflows in the Clover Valley in Elko County, Nevada. Habitats vary from cold streams and rivers to small thermal springs. Accurate life history data for Clover Valley speckled dace is lacking. Speckled dace become mature during its second summer. Spawning usually occurs throughout the summer, with peak activities June and July when water temperatures approach 18 °C (65 °F) (USFWS 1998). Males will congregate in small spawning areas where they may clear a small patch of rocks and gravels. Females will deposit eggs underneath rocks or close to the bottom. Once fertilized, the adhesive eggs will hatch in approximately six days. Larval fish remain in the gravel for an additional seven to eight days. Upon emergence (1 week later), fry tend to congregate in the warm shallows near large rocks. They then move into quiet swampy covers to rear. This species is found in the Project Area.

Amphibians

Northern Leopard Frog-BLM Sensitive

Northern Leopard Frog (*Lithobates pipiens*) requires a variety of riparian habitats, involving aquatic winter and breeding habitats, as well as upland post-breeding habitats and the corridors between them. Various temporary riparian habitats can be used including springs, slow streams, marshes, bogs, ponds, canals, flood plains, reservoirs, and lakes. Permanent riparian habitat has water with rooted aquatic vegetation such as wet meadows and fields. These frogs take cover in underwater niches, or in caves when inactive. Northern Leopard Frog overwinters in well-oxygenated not completely frozen water. Eggs are attached to vegetation just below the surface of the permanent water. This species range is found throughout the Project Area.

Great Basin Spadefoot

Great Basin Spadefoot (*Spea intermontana*) have adapted to dry habitats by burrow during cold and dry weather. Spadefoot toads are primarily terrestrial and require upland habitats for feeding and for constructing burrows for their long dry-season dormancy. This toad uses pinyon-juniper, semi desert shrub lands, sagebrush flats, grasslands, and desert habitats. They also require riparian and aquatic habitats for reproduction. This species range is found throughout the Project Area.

3.2.2.2. Environmental Effects

Effects of the No Action Alternative

There would be no direct impacts from gather operations. No direct impacts to Aquatic Wildlife, Special Status Species including Threatened, Endangered and Candidate Species are expected under this alternative. Maintaining the existing excess wild horse numbers within the gather area, which would continue to increase as a result of population growth, would result in continued indirect impacts to Aquatic Wildlife and habitats. Wild horse populations would increase approximately 15-25% each year that the gather is not conducted. Riparian habitats would continue to see locally heavy levels of utilization associated with wild horse use which would be exacerbated as wild horse populations continue to increase.

If excess wild horses are not removed, continued heavy grazing will occur on spring meadow systems that serve important habitat functions for sensitive species. The removal of riparian vegetation would directly affect aquatic fish ability to avoid avian predation pressure leading to a lower population size of these status species. Other beneficial impacts as discussed under Alternatives A, B, and C would not be realized.

Effects of the Proposed Action

Direct and indirect disturbance to wetlands and riparian areas is not anticipated from the Proposed Action. The Proposed Action would avoid direct and indirect impacts to wetland and riparian resources to the extent possible. The Proposed Action would avoid surface disturbance to avoid any adverse impacts to these resources. Avoidance would be implemented and uniformly followed reducing these potential impacts to negligible.

3.2.2.3. Cumulative Effects

Cumulative impacts to riparian and wetland areas may result from past and ongoing surface disturbance from mining exploration operations; grazing by livestock, wild horses, and wildlife; and recreational actives. Livestock, wild horses, and wildlife grazing can impact wetland and riparian areas through trampling and shearing of streambanks, compaction of wetland soil, trampling of plants, and overuse of riparian plant species. Riparian and wetland areas that have been overgrazed are susceptible to invasion by noxious weeds and invasive plant species, which can displace riparian and wetland species over time (Dickard et al 2015).

Cumulative effects of the Action Alternatives would be most impactful during the short-term (the 10-yr time period of the Alternatives), specifically during active gather operations when low-flying helicopters are driving horses toward gather sites and water/bait gather operation are taking place. Human activity associated with these and water/bait gather operations could temporarily disturb or displace aquatic species in these areas. However, when added to PPRFFAs, the aggregate impacts of direct and indirect effects are not expected to significantly impact aquatic species in a negative way. Over both the short and long-term (10-14 years), when added to PPRFFAs, the aggregate impacts of direct and indirect effects are expected to be beneficial for aquatic species and their habitats including immediate benefit due to reduced competition for forage and water and gradual improvement of riparian health.

3.2.3. Invasive, Non-native Species

3.2.3.1. Affected Environment

Several federal laws, regulations, and policies guide BLM management activities to control noxious weeds and invasive non-native species on public lands. Laws applicable to control invasive vegetation include: the Federal Land Policy and Management Act (FLPMA) 1976; Carlson-Foley Act of 1968; Plant Protection Act of 2000; Federal Noxious Weed Act of 1974; The Federal Insecticide, Fungicide and Rodenticide Act of 1972 (FIFRA); and the Noxious Weed Control Act of 2004. To comply with these Laws, BLM policy directs the agency to inventory and control invasive vegetation utilizing integrated weed management techniques.

Nevada Revised Statutes, Chapter 555.05 defines "noxious weeds" and mandates landowners and land management agencies to control noxious weeds on lands under their jurisdiction. Noxious weeds are aggressive, typically nonnative, ecologically damaging, undesirable plants,

improve in the long term since physical impacts from wild horse use would decrease due to the proposed gather.

3.2.7.3. Cumulative Effects

Past and present impacts to soil resources in the HMAs have resulted from wildlife and wild horse-use, livestock grazing, road construction and maintenance, OHV use and recreation, exploration, mining and processing, aggregate operations, public land management activities (e.g., fuel reduction treatment), and wildland fire. Reclamation of areas disturbed from past actions and natural revegetation have helped minimize impacts to soil resources through improved vegetation cover and stabilization to varying degrees.

Impacts to soil resources from reasonably foreseeable future actions (RFFAs) are considered to be similar to those described for present actions. Impacts from the Proposed Action (Alternative A) would include soil compaction and disturbance erosion during the occasions the BLM conducts gathers over the life span of the document. The cumulative impact on soil resources from the incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs would be moderate and intermittent. The Cumulative Impacts from the No Action Alternative would incrementally increase damage to soil resources. See Tables 4-6 above.

3.2.8. Special Status Species (SSS)

3.2.8.1. Affected Environment

Birds

Greater Sage-Grouse

On September 21, 2015, BLM finalized the Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA; BLM 2015). The Record of Decision amended Resource Management Plans for BLM offices containing Greater Sage-Grouse (GRSG) habitat in response to the 2010 US Fish and Wildlife Service (USFWS) finding that the GRSG was "warranted but precluded" from listing under the Endangered Species Act. The USFWS identified the inadequacy of existing regulatory mechanisms as a primary threat to the species, including the principal regulatory mechanisms for the BLM as conservation measures incorporated into land use plans. Therefore, the purpose of the ARMPA is to identify and incorporate appropriate measures in existing land use plans. It is intended to conserve, enhance and restore GRSG habitat by avoiding, minimizing, or compensating for unavoidable impacts on GRSG habitat in the context of the BLM's multiple-use and sustained yield mission.

Greater Sage-Grouse habitat within the ARMPA planning area falls into three management categories: priority habitat management areas (PHMA), general habitat management areas

high level of sewage being produced by horses in the area. Stud piles can be seen next to overgrazed riparian areas. The decomposition of the increased plant growth causes the water to become depleted of oxygen. Larger aquatic life forms (i.e., fish), can suffocate to death.

3.2.11.2. Environmental Effects

Effects of the No Action Alternative

With the No Action Alternative, wild horse populations would continue to increase within the HMAs and to expand beyond the HMA boundaries. Increased wild horse use within and outside the HMAs would adversely impact additional riparian resources and their associated surface waters. Over the longer-term, as native plant health continues to deteriorate and plants are lost, soil erosion would increase. An opportunity to make progress toward achieving and maintaining riparian areas in properly functioning condition would be foregone as ever increasing numbers of wild horses continue to trample and degrade other riparian areas, springs and associated water sources. Riparian areas that are currently in a Functional at Risk with a Downward Trend state would be expected to decline to a Non-Functional state over time.

Effects of the Proposed Action and Alternatives B and C

To avoid the direct impacts potentially associated with the helicopter gather operation, temporary gather sites and holding/processing facilities would not be located within riparian areas. Bait/Water traps placed at or near springs would not cause new damage to water resources and riparian areas since only locations with already existing heavy use by wild horses would be used. Removal of excess wild horses would decrease the overall degradation of these resources and may lead to improvement if the number of animals removed is sufficient.

3.2.11.3. Cumulative Effects

Past and present impacts to water resources and wetland/riparian areas in the HMAs have resulted from wildlife and wild horse use, livestock grazing, road construction and maintenance, OHV use and recreation, exploration, mining and processing, aggregate operations, public land management activities (e.g., fuel reduction treatment), and wildland fire. Reclamation of areas disturbed from past actions and natural revegetation have helped minimize water quality impacts to varying degrees.

Impacts to water resources and wetland/riparian areas from reasonably foreseeable future actions (RFFAs) are considered to be similar to those described for present actions. Impacts from the Proposed Action (Alternative A, B and C) would include riparian trampling and the introduction of sediment into spring water during the occasions the BLM conducts gathers over the 10-year period. The cumulative impact on water resources and wetland/riparian areas from the

incremental impact of the Proposed Action when added to the past actions, present actions, and RFFAs would be minimal and intermittent. The cumulative impact from the No Action would have a countervailing impact to the rehabilitations of degraded wetland and riparian zones caused by wild horses. The continued increase of wild horse numbers would impose greater use pressure on water sources and riparian areas under the No Action alternative. See Tables 4-6 above.

3.2.12. Wild Horses and Burros

3.2.12.1. Affected Environment

The environmental consequences for this EA are analyzed for helicopter and non-helicopter gathers of wild horses and associated resources within and adjacent to trap sites. This analysis also tiers to the 2013, 2011 and 2010 EA analyses.

The affected environment encompasses the Antelope and Triple B Complexes.

General Description

Antelope Complex

The Antelope Complex is made up of the Antelope HMA (managed by the Ely District), Antelope Valley HMA, Goshute HMA, and Spruce-Pequop HMA (managed by the Elko District). These HMAs were designated through Land Use-Planning for long-term management of wild horses. The Appropriate Management Level (AML) for the Antelope HMA was reaffirmed through the Ely District RMP. AML for the Antelope Valley, Goshute HMA, and Spruce-Pequop were set through Wells RMPWHA and adjusted through Frame Work Management Plans (FMPs) (please see Table 1 for break out by HMAs). These areas are gathered as a complex due to the wild horse interchange between HMAs. Fences do exist within the HMAs but do not restrict wild horse movement due to the fact that the fences are open at the end (open ended). The wild horses from these HMAs travel back and forth across the Elko and White Pine County Line, mixing with the wild horses from the other HMAs within the Complex. The population within each HMA can fluctuate depending on the season due to these movements.

In 2001, the Nevada Department of Transportation (NDOT) fenced the Highway 93 Right of Way (ROW) to improve public safety as numerous vehicle/horse collisions had occurred in previous years. This fence separates the western portion of the Antelope Valley HMA from the rest of the HMA. The wild horses in the western portion of the HMA move freely back and forth with wild horses from the Maverick/Medicine HMA. It was last gathered as part of the Buck and Bald Complex Gather in 2006.

In the spring of 2007, the NDOT fenced the Alternate Highway 93 right-of-way to ensure public safety. This new fence separates the eastern 1/3 of the Antelope Valley HMA from the rest of

This level of use impacts native perennial plants and allows for annuals such as cheatgrass, mustard and halogeton to increase.

Excessive use by wild horses has been observed and documented on reclaimed and re-vegetated mining notice sites, rangeland improvements, seedings, and fire rehabilitation sites inhibiting recovery of disturbed sites within the Complex.



Figure 36. Severe utilization on Indian ricegrass (pre-livestock turn out) by wild horses in the Antelope Complex (October 2017).